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Determination of gold and palladium in rocks and ores by atomic absorption spectrometry using two-stage probe atomization

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Abstract

© 2017, Pleiades Publishing, Ltd.The efficiency of two-stage probe atomization for the determination of gold and palladium in geological samples by electrothermal atomic absorption spectrometry is studied. The effects of temperature–time program and the position of the probe in an atomizer on the fractionation of sample components and the magnitude of the analytical signal are studied. It is demonstrated that gold and palladium can be quantitatively determined by atomic absorption spectrometry in rocks and ores, using a two-stage probe atomization with the limits of detection for gold and palladium 0.01 and 0.04 g/t, respectively.

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Keywords

electrothermal atomic absorption spectrometry, gold, palladium, rocks and ores, two-stage probe atomization

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